

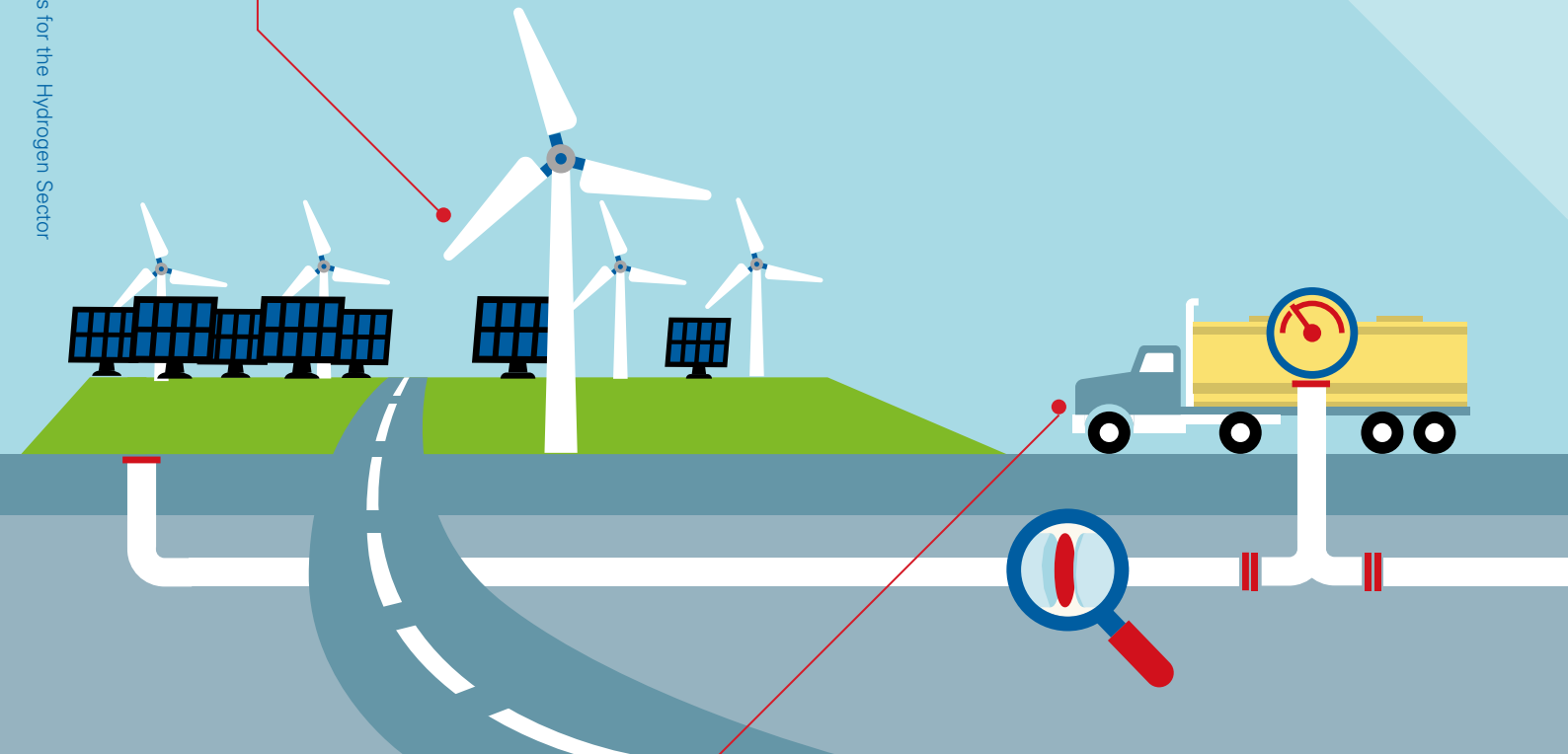
Services for the Hydrogen Sector



▶ Partner
for
Progress

Production

- ▶ Testing, Inspection and Certification of Electrolysers
- ▶ Certification of Pressure Equipment (PED)
- ▶ Non-destructive testing
- ▶ Carbon Footprint Certification according to GHG Protocol
- ▶ Verification of conformity according to CSense scheme
- ▶ Green Hydrogen Production Systems Energy Engineering - technical and financial due diligence for Hydrogen production processes from renewable sources, with independent evaluations on projects (Kiwa Moroni)
- ▶ Pre-assessment and evaluation of projects under development in accordance with international standards and proprietary technical documents



Distribution and transport

- ▶ Testing, Inspection and Certification of products and components for the distribution and transport of Hydrogen
- ▶ Testing and Certification Gastec QA KE 214 for components suitable for the use of Hydrogen
- ▶ Certification of Pressure Equipment (PED)
- ▶ Certification of transportable Pressure Equipment (PED)
- ▶ Non-destructive testing
- ▶ Pre-assessment analysis for the use of components for Hydrogen distribution and transport (new NG networks and retrofits of existing ones)
- ▶ Independent verifications on safety provisions for the management of Hydrogen networks
- ▶ Testing of materials compatibility with Hydrogen and carbon dioxide: permeation of materials, transport systems and applications, chemical compatibility of polymers, elastomers, rubbers, metals.
- ▶ Technical-financial audits aimed at identifying risks and opportunities of projects for the distribution and transport of hydrogen

Storage

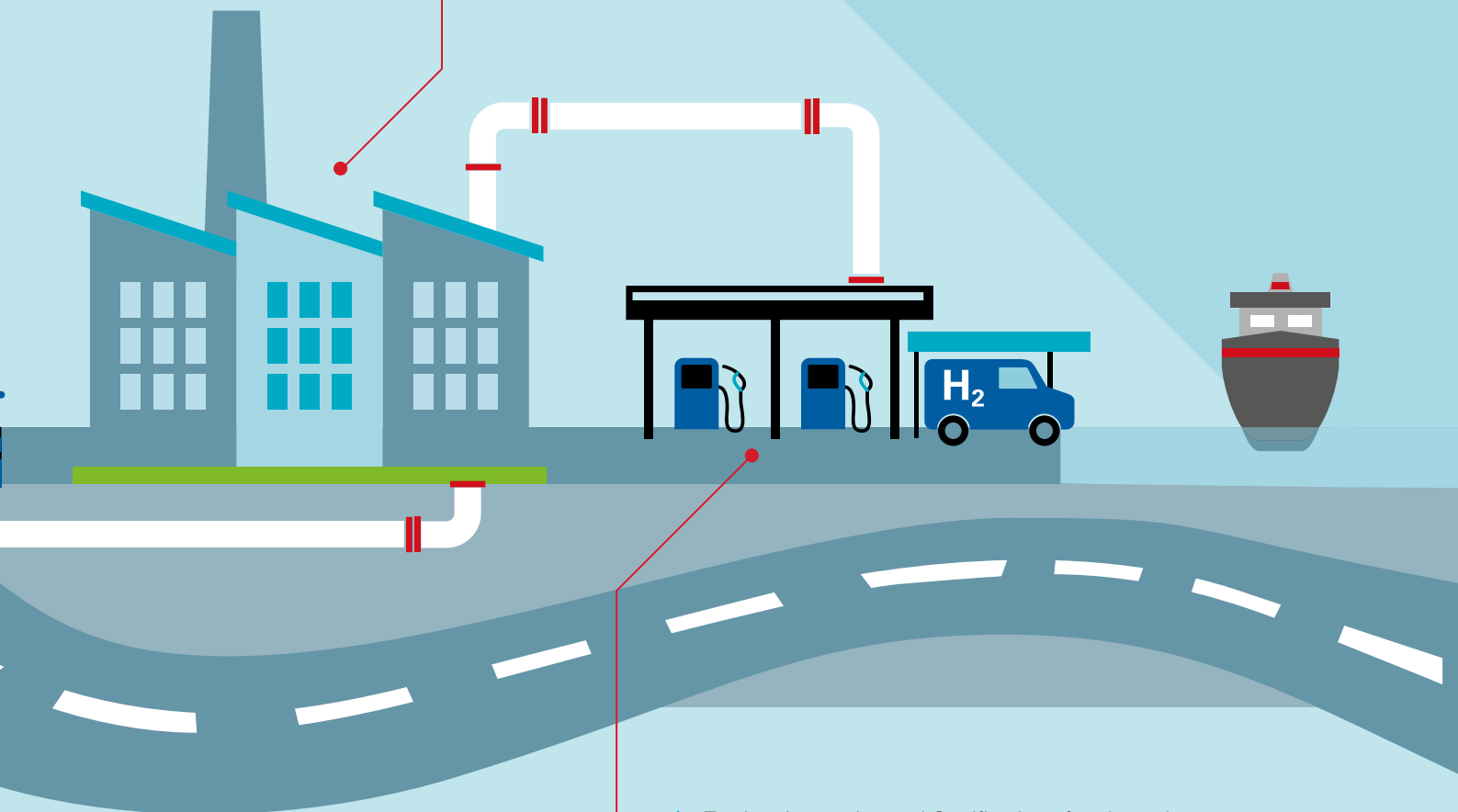
- ▶ Testing, Inspection and Certification to ensure quality, safety and performance of high-pressure components, e.g. process and storage tanks
- ▶ Pressure Equipment Certification (PED)
- ▶ Non-destructive testing
- ▶ Technical and financial audits to identify risks and opportunities of Hydrogen storage tank, geological storage and bullet storage projects

Domestic, Commercial, Industrial Appliances

- ▶ Testing and Certification of Hydrogen appliances (domestic, commercial and industrial)
- ▶ Testing and Certification according to Gas Appliances Regulation - CE marking, UKCA, UKNI
- ▶ Testing and Certification of fuel cells and mCHP units
- ▶ Testing and Certification according to Hy4Heat gas quality standard
- ▶ Testing and Certification Gastec QA KE 214 for components in contact with Hydrogen
- ▶ Non-Destructive Testing
- ▶ Pressure Equipment Certification (PED)
- ▶ Pre-assessment and evaluation of projects under development in accordance with international standards and proprietary technical documents

Industrial Processes

- ▶ Pressure Equipment Certification (PED)
- ▶ Non-destructive testing
- ▶ Testing and Certification to ensure quality, safety and performance of high-pressure components, e.g. process and storage tanks
- ▶ Independent verification of safety regulations for industrial Hydrogen handling and storage



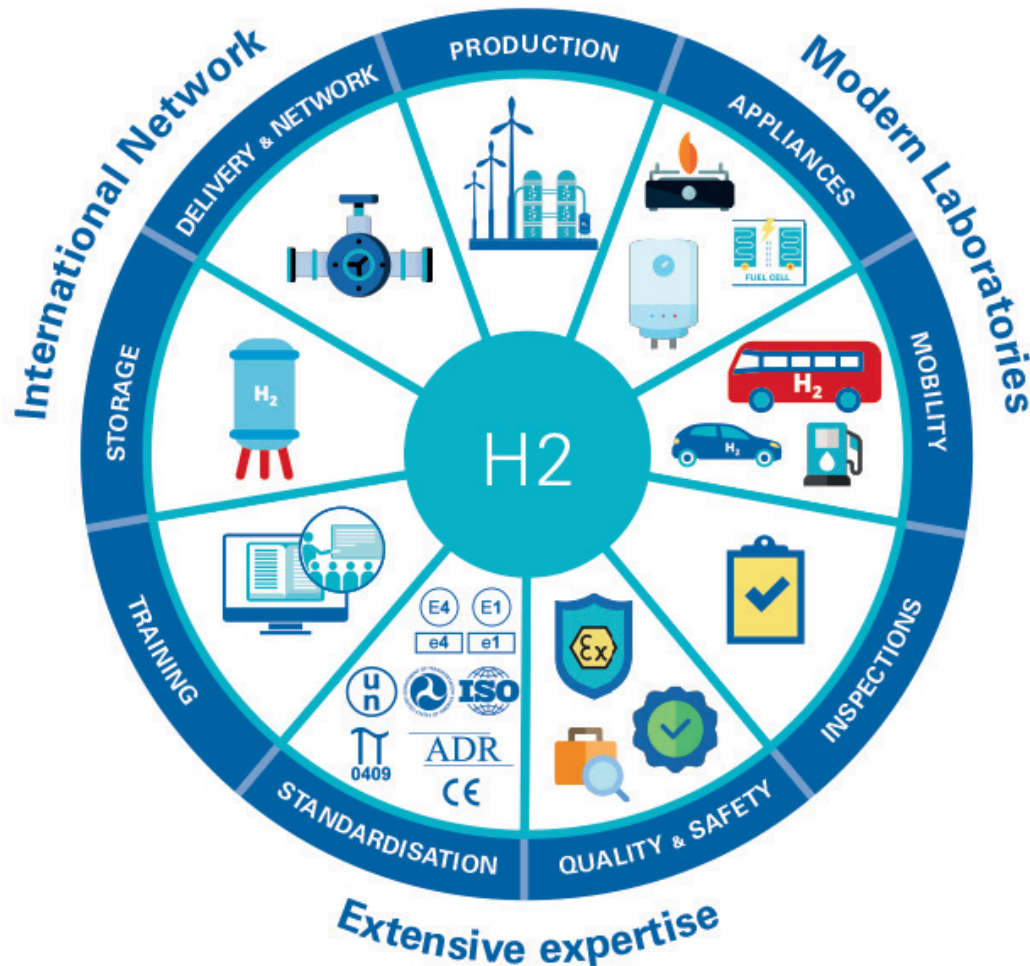
Mobility

- ▶ Testing, Inspection and Certification of tanks and components, up to 4000 bar
- ▶ Certification of Hydrogen vehicles
- ▶ Certification of H2 filling stations
- ▶ Certification of Pressure Equipment (PED)
- ▶ Technical and financial audits aimed at identifying risks and opportunities of Hydrogen purification projects and for the conversion of gas networks

See all our Testing, Inspection and Certification services at www.kiwa.com

A complete service portfolio for the Hydrogen value chain

Low-emission transportation, greater flexibility of the electricity grid and cleaner industrial processes are all necessary to realise energy transition. Hydrogen, thanks to its characteristics, has the potential to contribute significantly to the achievement of this ambitious goal. Kiwa, thanks to an extensive expertise in the gas sector and a wide knowledge of related infrastructures, has a unique stance in the hydrogen market. We are already active at national and international levels for technical assistance, testing, inspection and certification of solutions dedicated to this supply chain.



**Contact our experts for
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